OPERATING SYSTEM CT-353

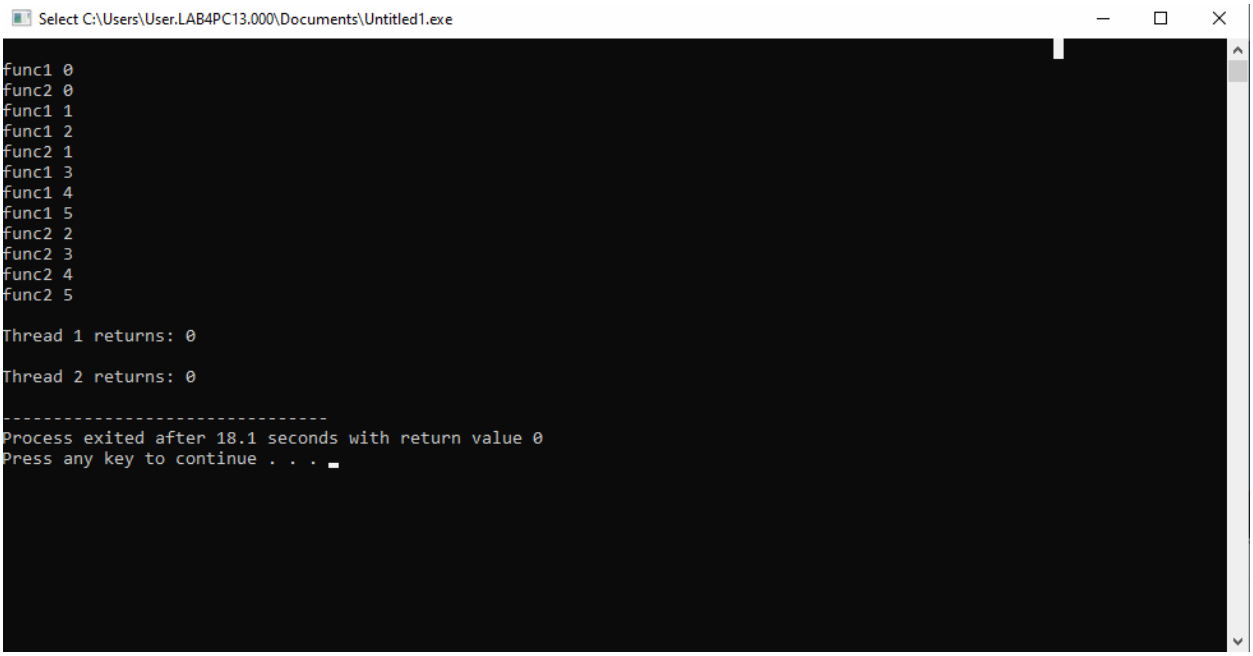
SYED AHAB ALI DT-22049

LAB # 03

1) **Implement the above code and paste the screen shot of the output.**

```
#include <stdio.h>
#include <stdlib.h>
#include <pthread.h>

void *func1(void *ptr);
void *func2(void *ptr);
main()
{
pthread_t thread1, thread2;
char *message1 = "Thread 1";
char *message2 = "Thread 2";
int iret1, iret2;

iret1 = pthread_create( &thread1, NULL, func1, (void*) message1);
iret2 = pthread_create( &thread2, NULL, func2, (void*) message1);

pthread_join( thread1, NULL);
pthread_join( thread2, NULL);
printf("\n\nThread 1 returns: %d\n",iret1);
```

```
printf("\nThread 2 returns: %d\n",iret2);
exit(0);
}

void *func1(void *ptr) {
for (int i = 0; i < 6; i++) {
printf("\nfunc1 %d", i);
sleep(1);
}
}

void *func2(void *ptr) {
for (int i = 0; i < 6; i++) {
printf("\nfunc2 %d", i);
sleep(3);
}
}
```



2) **Describe the following line of code:**
iret1 = pthread_create(&thread1, NULL, print_message_function, (void*) message1);

Ans:

- pthread_create creates a new thread (thread1) and starts it by executing the function print_message_function.
- The message "Thread 1" is passed as an argument to print_message_function.
- The return value of pthread_create (indicating success or failure) is stored in iret1.